

CONTENTS



List of Figures vii

List of Tables ix

Preface xi

Acknowledgments xv

Organization of This Book xvii

I PRELIMINARIES 1

- 1 Questions about *Questions* 3
- 2 The Experimental Ideal 11
 - 2.1 The Selection Problem 12
 - 2.2 Random Assignment Solves the Selection Problem 15
 - 2.3 Regression Analysis of Experiments 22

II THE CORE 25

- 3 Making Regression Make Sense 27
 - 3.1 Regression Fundamentals 28
 - 3.2 Regression and Causality 51
 - 3.3 Heterogeneity and Nonlinearity 68
 - 3.4 Regression Details 91
 - 3.5 Appendix: Derivation of the Average Derivative Weighting Function 110
- 4 Instrumental Variables in Action: Sometimes You Get What You Need 113
 - 4.1 IV and Causality 115
 - 4.2 Asymptotic 2SLS Inference 138
 - 4.3 Two-Sample IV and Split-Sample IV 147

4.4	IV with Heterogeneous Potential Outcomes	150
4.5	Generalizing LATE	173
4.6	IV Details	188
4.7	Appendix	216
5	Parallel Worlds: Fixed Effects, Differences-in-Differences, and Panel Data	221
5.1	Individual Fixed Effects	221
5.2	Differences-in-Differences	227
5.3	Fixed Effects versus Lagged Dependent Variables	243
5.4	Appendix: More on Fixed Effects and Lagged Dependent Variables	246
III	EXTENSIONS	249
6	Getting a Little Jumpy: Regression Discontinuity Designs	251
6.1	Sharp RD	251
6.2	Fuzzy RD Is IV	259
7	Quantile Regression	269
7.1	The Quantile Regression Model	270
7.2	IV Estimation of Quantile Treatment Effects	283
8	Nonstandard Standard Error Issues	293
8.1	The Bias of Robust Standard Error Estimates	294
8.2	Clustering and Serial Correlation in Panels	308
8.3	Appendix: Derivation of the Simple Moulton Factor	323
<i>Last Words</i> 327		
<i>Acronyms and Abbreviations</i> 329		
<i>Empirical Studies Index</i> 335		
<i>References</i> 339		
<i>Index</i> 361		